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ABSTRACT

Past and present trends in cognitive assessment in the USSR should be viewed within the context of Soviet psychology and Soviet developmental theories. This theoretical framework views cognitive abilities as an integral part of socio-cultural evolution. Pedology emerged as a strong movement in the 1920's. Its stated purpose was to identify and assess individual differences in cognitive skills and to develop a "science" of education. The pedology movement was replaced in the 1930's by an anti-testing policy. Makarenko's behavior modification approach, which disregarded past behavior and assessment data, and Medinsky's criticism of intelligence and achievement tests as being purposely designed to favor children of middle and upper classes influenced the Communist Party to declare pedology to be pseudo-scientific and anti-Marxist. This official position prevented the development of new psychodiagnostic techniques for many years. Soviet psychologists still reject the idea that it is possible to measure intellectual potential as an entity independent of experience and education. At the same time, in the past 10 years some Soviet psychologists have attempted to modify their attitudes toward psychodiagnosis and testing. While still critical of "testology," they acknowledge that the long campaign against pedology prevented the development of legitimate attempts to determine the parameters of a child's psychological, physical, and social development. (BW)

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Assessment of Cognitive Skills in the USSR: Historical Trends and Current Developments

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Historically, interest in cognitive skills, their assessment and prediction of cognitive functioning level has been directly related to cultural and social evolution. Awareness, interest, attention and curiosity have been recognized as attributes of cognitive development and human intelligence and an attempt to assess them has been made early in history. Long history of cognitive assessment reflects cultural attitudes, prevailing philosophical assumptions and strong ideological views. Questions relative to the assessment issues emanated from our views of the discipline of psychology, which in turn was affected by social and political climate.

Developments in psychology in the present century reveal its importance far beyond scientific domain. In the case of Soviet Psychology, it has become an integral part of ideological and political system. Furthermore, theoretical assumptions underlying cognitive assessment have been inherently related to theoretical notions about the nature of human intelligence. Those assumptions have not always been uniform. It has been mentioned recently by Gilboukh

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(1982) that such concepts as speed of performance or accuracy of performance have been given different emphasis by the leading theoreticians of intellectual assessment. For example, Galton attached considerable significance to the speed factor, while Binet did not consider it to be important. Speerman suggested that a "G" factor of intelligence should include both speed and accuracy.

Specifically, past and present trends in cognitive asssessment in the USSR should be viewed within the context of Soviet Psychology and Soviet developmental theories. Both have to be viewed within the context of dialectical materialism and Marxist interpretation of behavior. This theoretical framework views cognitive abilities as an integral part of socio-cultural evolution. It suggests that the environment, namely education and training forms abilities and does not only provide conditions for the manifestation of genetic programming. Furthermore, the individual's genetic programming does not determine abilities but the predisposition to those abilities.

Soviet Psychology, and correspondently its view of cognition and its assessment, had a long and at times turbulent history influenced by political and ideological currents. The initial struggle can be best illustrated by the controversy associated with removal of Tchelpanov, the organizer and first director of the Moscow University Psychological Institute and his replacement by Kornilov

in November of 1923 (Radzikhovsky, 1982). Between 1924 and 1929 four separate theoretical positions were present in Soviet Psychology. Those positions could be described as: (a) Sechenov's and Bechtiarev's "reflexology," (b) Pavlov's "conditioned reflexes," (c) Kornilov's "Reactology," and (d) Vygotsky's "cultural-historical" emphasis (McLeish, 1975).

History of assessment practices in the Soviet Union reveals three trends. Initial, so called pedology movement was replaced in the 1930's by anti-testing policy, followed more recently by reassessment of psychodiagnostic practices.

Pedology, with a goal of assessment of cognitive and educational skills, emerged as a strong movement in the 1920's. Its stated purpose was to identify and assess individual differences in cognitive skills and to develop "a science" of education. This development was influenced to some extent by writings of leading Western-European psychologists, e.g. Binet, Stern and others. Among leading supporters of pedology were such known Soviet psychologists of that time as Vygotsky and Blonsky. In 1929 Vygotsky published a chapter on "The Structure of Interests in Adolescence and the Interests of the Teenage Worker," in Problems of Pedology of the Teenage Worker.

He also lectured on the pedology of school-age children, and pedology of teenagers, at the Extension Division of

Moscow State University. Between 1930 and 1936 criticism of pedology increased and Blonsky's contributions were completely neglected. According to Nikolskaya (1974) it was only in the 1950's that Blonsky's contributions were again recognized.

At the time of Stalin's purges and anti-Western xenophobia, pedology became an easy target. Strong opposition developed against pedology lead by such critics as Makarenko and Medinsky. Makarenko developed and directed Gorky colony for homeless children and juvenile delinquents. He designed and applied on a large scale, what could be described as, behavior modification program utilizing positive and aversive conditioning. Makarenko's approach among other techniques involved disregard for past behavior and any assessment data. His main task was to create "a new man," a "builder of communist society." In the Soviet Union Makarenko is considered as having made significant contribution toward development of the concept of a collective.

Soviet educator Medinsky (1954) criticized intelligence and achievement tests as being purposely designed to favor children of middle and upper classes. He stated directly that: "Intelligence and achievements tests were made with such calculations, that the children of the indigent parents should appear as weakly endowed and non-achieving. Those tests claiming objective proof were in reality the means to enable the children of bourgeois to continue their

education and to except the children of the toilers" (p. 179). Such arguments were obviously very well received by the party in power. In 1936 the Central Committee of the Communist Party of the USSR declared pedology to be pseudo-scientific and anti-Marxist (Shore, 1947). Such official position for many years prevented development of new psychodiagnostic techniques.

Current approaches to the assessment and evaluation of cognitive skills in the Soviet Union differ dramatically from practices generally accepted in the United States and Western Europe. While the United States is known for its emphasis of psychometric techniques, standardized intelligence tests are virtually unknown in the Soviet Union.

Soviet psychologists reject an idea that it is possible to measure intellectual potential as an entity independent of experience and education. Tasks of psychological diagnosis in the USSR is not primarily directed at classification of students, but first of all toward discovery of problem solving strategies and differential approach toward education. Pinsky (1968) suggested that in order to evaluate a child's activity for diagnostic purposes, one must determine not only how he completes a task independently without help, but also how he functions when help is provided toward solution of the problem.

While use of standardized individual intelligence tests is not a practice in the Soviet Union, a number of

psychologists have developed a variety of techniques which quantify responses to various cognitive tasks. Psychodiagnostic assessment is based upon such various approaches as the use of subject matter material, crossword puzzles and chessboard problems. Siniov (1973) investigated inductive and deductive reasoning abilities in children attending special schools by designing a simple experiment involving ability to form generalizations. Based upon the experiment he concluded that mildly retarded children manifest cognitive abilities at four different levels: (a) ability to describe but not to explain observed phenomena, (b) ability to explain some isolated phenomena, (c) ability to observe generalizability, (d) ability to derive general rules.

Umanskaya (1977) described various techniques of intellectual assessment of pre-school children. Observation techniques in a collective play situation were utilized for this purpose. The examiner was interested in the following approach by children to the task at hand: (1) selection of toys; (2) appropriate use of toys; (3) organization and sequence of play; (4) role playing; (5) Stability of attention; (6) fantasy level; (7) extent of verbal communication; (8) reasons why a child terminates the play.

Some other defectologists, as for example Korobeynikov and Lubovsky (1981) suggested that a psychological experiment

can be adopted as a help in diagnostic process.

Typical psychoeducational assessment practices in the Soviet Union have been described by Dubrovina (1970) and Em (1974), and reported by Holowinsky (1976). Using numbers and words, Dubrovina (1970) assessed development of mental abilities in young school children. To test for number concepts a child was presented with three numbers, e.g. 2, 6 and 4 and asked to use these numbers in as many arithmetic problems as possible. A child was also asked to construct a sentence given key words. Dubrovina suggested an arbitrary scoring system as follows. A score of 4 was assigned to a child who was able to solve a problem rapidly and without help; a child who solves a problem by himself but with delay gets a score of 3; a child who needs concrete examples to set up and solve a problem receives a score of 2; a child who needs extensive help from the examiner get a score of 1; a 0 score was assigned to a child who was unable to solve a problem even with a help from the examiner.

Em (1974) described an evaluation process used in the Institute of Defectology, Academy of Pedagogical Sciences of the USSR. Procedures and techniques utilized by the clinical staff included: a) medical history, b) interviews with parents, c) interviews with siblings; d) psychoeducational evaluation which consisted of comprehension of written stories and description of series of pictures. Clinical assessment involved: a) classification

of pictures, b) comprehension of similarities and differences, c) performance on the Seguin Form Board. Observation of a child's behavior in the classroom and on the playground was part of an educational assessment. On the basis of this study the children were divided into three groups: A - highly achieving; B - moderately achieving, C - poorly achieving.

Children in the first group were further subdivided into two additional subgroups; those children who manifested some difficulty with symbolic and abstract problem-solving but were otherwise well benaved, punctual and always completed their work on time; and those children who were impulsive, hyperkinetic, always performing with speed at the expense of accuracy.

In the second group were children classified as oligophrenics. They were divided into two subgroups; those in whom inhibition predominated over excitation, and those in whom excitation predominated over inhibition.

In the third group were children both intellectually and physically handicapped. Noted among them were impairments of auditory, motor and physical functions.

A recent publication by Bleykhev and Burlachuk (Rozhdestvenskaya, 1979) describes psychological diagnosis of intelligence and personality and reviews current practice and theory in the Soviet Union. In a traditional sense intelligence is defined as a "relatively independent,

dynamic structure of cognitive properties of personality which are formulated by cultural-historical conditions" (p. 89).

Concerns with tests and testing described in Soviet psychological literature as Western "testology," continue to be voiced in Soviet psychological and defectological literature. Gourevitch (1982) maintains that tests in the West became a factor of social life in spite of the fact that they are incorrectly understood and explained as well as overutilized. Gilboukh (1982) voices an opinion that even after acceptance of theories of mental development elaborated by Vygotsky, Piaget, and Bruner, mental measurement in the United States remained a mathematical, statistical discipline isolated from findings of psychological science. Elaborating further upon the same line of reasoning, Slobodtchikov (1982) points out that while tests are sufficient for identification of problems and selection of students, they are not sufficient to introduce educational changes. He stresses further that the most important emphasis should not be placed upon the results of the examination, but the process itself, the means and ways of obtaining test findings.

At the same time, in the past ten years we have noticed some attempts by Soviet psychologists to modify their attitudes toward psychodiagnosis and testing. Among leading proponents of reassessment are such noted

psychologists as Lubovsky and Zamsky. While still critical of "testology," they acknowledge that the long campaign against pedology prevented the development of legitimate attempts to determine the parameters of a child's psychological, physical and social developments.

Recently, symposia and conferences were organized focusing upon questions of psychodiagnosis. At a symposium described by Yassman (1975), noted Soviet psychologist Lubovsky argued for an appropriate use of quantitative data and statistical analysis to help in the determination of qualitatively unique characteristics of developmental disabilities. The symposium participants decided to petition the executive council of the Soviet Psychological Association and the Academy of Pedagogical Sciences for permission to develop theoretical and practical approaches to psychodiagnosis.

Bogoyavlenskaya (1980) discussed psychodiagnosis in schools. This topic was a concern fo a symposium in which more than 100 scientists participated, representing fifty scientific institutions and nine Soviet republics. Of interest are some of the recommendations developed by the symposium participants:

a) to organize a section on psychodiagnosis within the Association of Soviet Psychologists.

b) to establish liaison with scientific research institutes and with universities training psychologists.

c) to petition editors of Psychological Journal and of Voprosy Psikhologii to devote attention to problems of psychodiagnosis.

d) to organize symposium on psychodiagnosis in 1983.

In conclusion we may notice that interest in the assessment of cognitive skills has a long history in our civilization. The emphasis, however, changed depending upon prevailing historical trends, scientific emphasis, and ideological considerations. In the Soviet Union, the trends can be identified as: an initial interest in the assessment of individual differences known as "pedology"; rejection of pedology by an official state policy; new trends toward assessment practices.

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